



fives

V-STAR

Exceptional Versatility
and Productivity



HIGH PRECISION
MACHINES

MATERIAL REMOVAL

V-STAR



V-STAR



Processing complex and large aluminum and composite parts, V-STAR is an innovative flexible solution engineered for high-speed 5-axis machining.

This solution offers the ultimate in versatility and productivity, delivering precision, stability, and dynamic performance. Its advanced automation optimizes production cycles for high throughput while maintaining top-tier quality. V-STAR stands out as the safest solution on the market for operators, offering high ergonomics and ensuring sustainable operations. With a robust design V-STAR guarantees perfect dimensional stability in a wide range of conditions.

01 High versatility

02 Sustainable productivity

03 Smart control



V-STAR

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Mass production of complex and large aluminum and composite parts



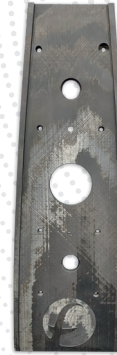
Spar



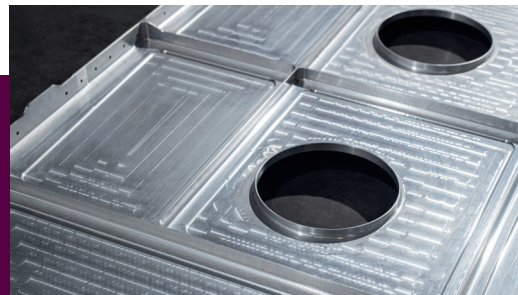
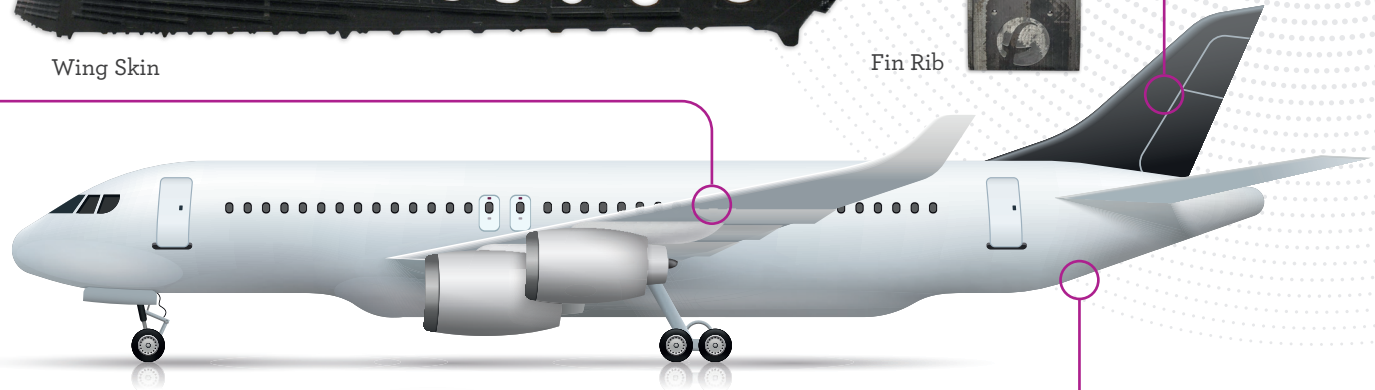
Wing Rib



Wing Skin



Fin Rib



Wing Rib

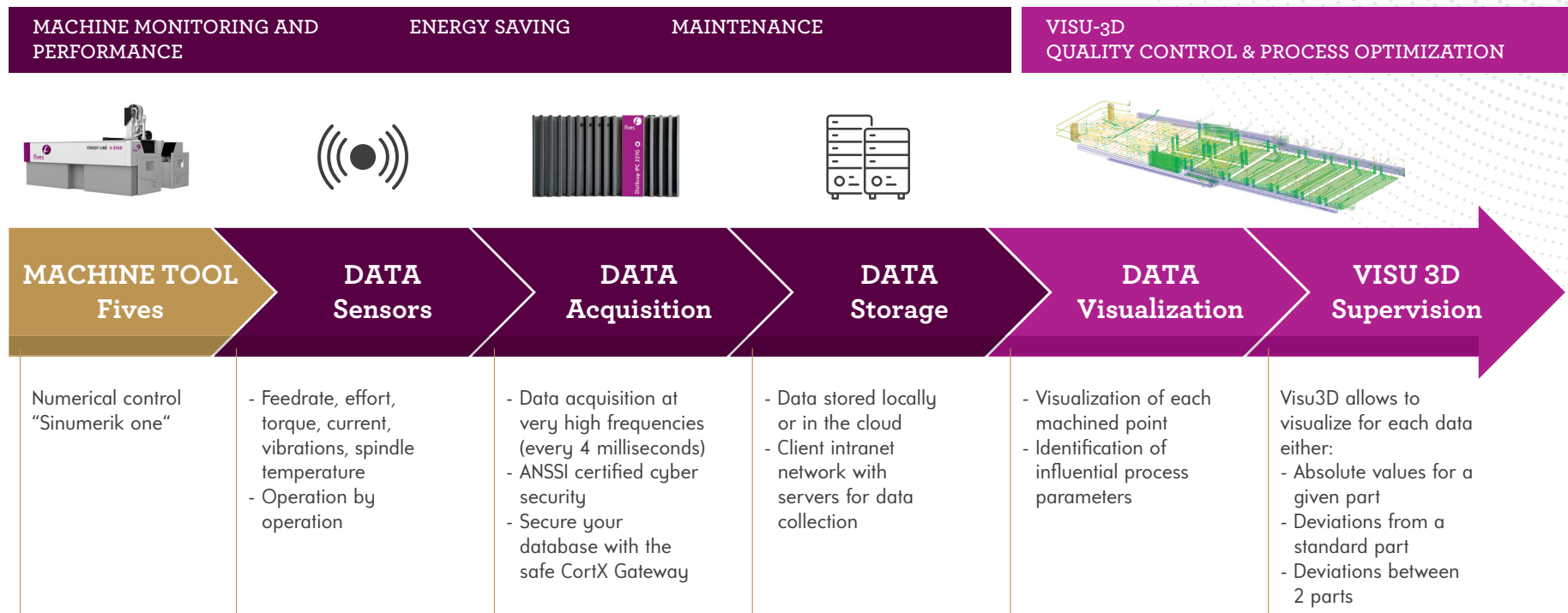


Fuselage Frame

Along with complete life-cycle support, assistance, and solid technological collaboration, V-STAR has been customized on request to meet the highest industry standards and quality.

VISU 3D - Master your machining process & Optimize your costs

Industrial performance: your 4.0 connected machine tool





Up to
-30%

INDUSTRIALIZATION

Reduction in the number of iterations up to validation of parts for industrial production

Up to
-10%

MACHINING CYCLE

Optimization of trajectories and cutting conditions

Up to
-60%

QUALITY CONTROL

Improving the monitoring plan as needed

VISU 3D - Fast, easy and precise visualization of your machining

Correlate process data with part quality



Reduce total time and optimize your costs

Industrialization - Machining - Final control

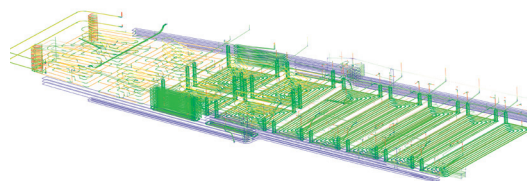
1

Improve the quality of your parts

2

Master traceability

3



Visu 3D - All Fives solutions
Manage your quality thanks to machined part 3D visualization

Real time data monitoring while machining: capturing the position of the cutting point and quality/ process metrics at the same time to create a 3D view of the product.

High versatility



ENDLESS SOLUTIONS

FLEXIBLE CONFIGURATION

- Wide range of parts: Y 5m - X axis stroke up to 50 m
- Safe and easy to use
- Mastering quality from simple to complex parts
- Fit with your existing and future parts support
- Integration of the latest machine-tools advancements
- Standard and bespoke accessories integration
- Customizable working area
- Pendular machining for optimized productivity and machine utilization time
- FlexiTool for minimized set-up times and lower recurring operating costs

Processing complex and large aluminum and composite parts, V-STAR is an innovative flexible solution engineered for high-speed 5-axis machining.



SAFE SOLUTION

EASY OPERATIONS

- Easy access to the working area, directly at floor level
- TPM Total Productive Maintenance: low TCO with low-maintenance and low operation cost
- Fully enclosed machining area
- Maintain healthy environment with monitoring and air treatment

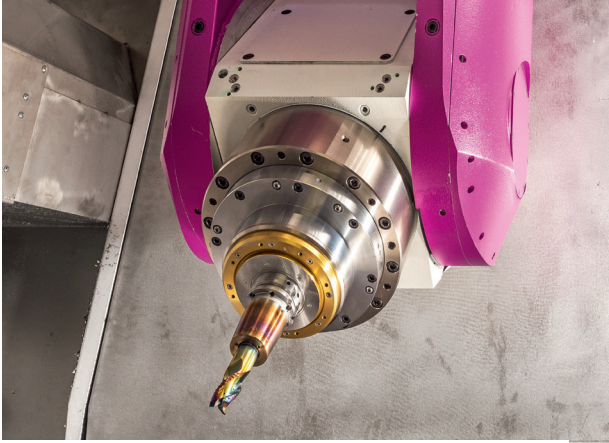


SUSTAINABLE OPERATIONS

MADE TO LAST, FIVES DESIGN EXPERTISE

- Drastic reduction of power consumption during production thanks to data expertise
- Designed and produced in France, smart engineering, high-quality manufacturing
- Made with more than 150 years experience in machine-tools
- Benefits from our expertise: Consulting & Development to meet your needs

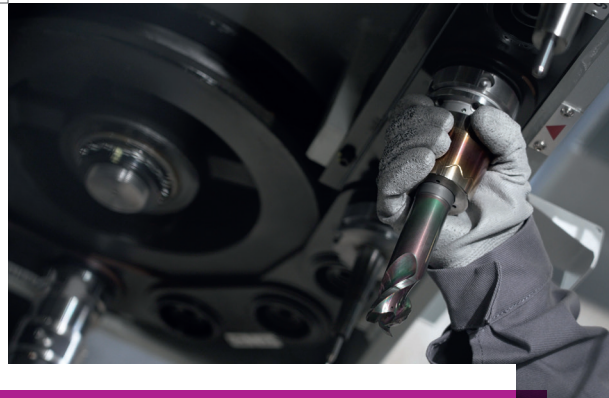
Sustainable productivity



MRR HIGH METAL REMOVAL RATES

HIGH SPEED 36,000 rpm AND HIGH-POWER UP TO 125 kW

- MRR up to 12 litres per minute
- 5-Axis kinematics: AB (efficiency, productivity) or AC (precision, versatility)
- Unmatched performance with linear motors
- Unparalleled accuracy with our in-house 5-axis heads
- Single or multi-spindle



LONG-LASTING SOLUTION WITH LOW-MAINTENANCE

NO WEAR AND TEAR

- X-Y linear motors, mechanical contactless
- Z-axis without counterbalancing thanks to an innovative planetary roller screw
- Non-stop production: worldwide services and spare parts availability
- Robust and stable solution



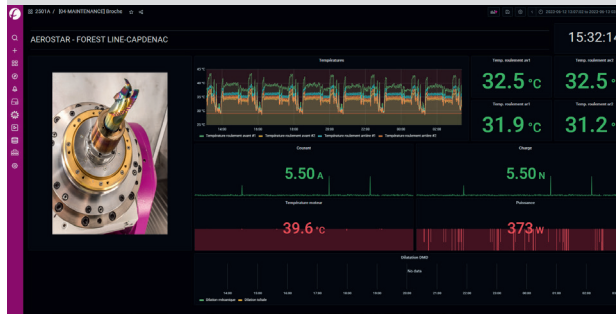
OUTSTANDING QUALITY AND ACCURACY

HIGH-PRECISION FINISHED PARTS

- Highly dynamic and stiff machine
- High precision and repeatability to meet consistent and outstanding quality
- Part quality optimization: from roughing to finishing process modes

More than 100 V-STAR worldwide

Smart control



CONNECTED SOLUTION

EASY SOFTWARE

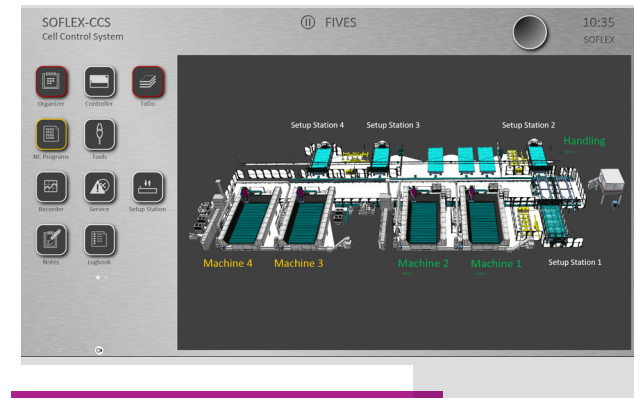
- Process and production optimization thanks to process visualization
- Connectivity: OPC-UA / IO-Link
- Data collection: Fives cortX / dizisoft
- Fives consulting: experts support
- Optimized electrical consumption



INTUITIVE OPERATIONS

QUICK AND USER-FRIENDLY

- High-end operator panel & intuitive interface
- Production control, traceability
- Preventive maintenance
- Easy migration of existing programs



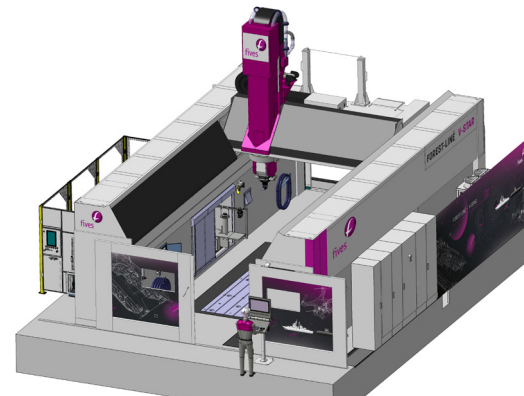
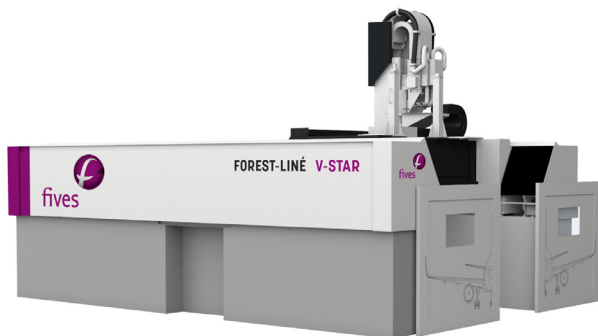
SUPERVISION SOFTWARE

> FMS OR STAND ALONE

FM SUPERVISOR

- Ergonomics, simple operations designed for operators
- Supervision system customized to your needs, evolutive system
- Excellent expertise with more than 30 years experience in Fives supervision

V-STAR uses advanced automation to speed up production while maintaining high quality.



V-STAR | SPECIFICATIONS

AB or AC Milling head

B Axis (Rotary)

Travel / Stroke	+/- 60°
Speed / Feed rate	20 rpm

A Axis (Rotary)

Travel / Stroke	+/- 60°
Speed / Feed rate	20 rpm

C Axis (Rotary)

Travel / Stroke	+/- 360°
Speed / Feed rate	20 rpm

A Axis (Rotary)

Travel / Stroke	+/- 110°
Speed / Feed rate	20 rpm

X Axis

Travel / Stroke	up to 50 m - 164 ft
Feedrate	60 m/min - 2362 ipm
Acceleration	1.5 m/s ² or 3 m/s ² - 60 in/s ² or 120 in/s ²

Y Axis

Travel / Stroke	from 2 m to 5 m - from 75 in to 180 in
Feedrate	60 m/min - 2362 ipm
Acceleration	1.5 m/s ² or 3 m/s ² - 60 in/s ² or 120 in/s ²

Z Axis

Travel / Stroke	from 0.750 m to 1.700 m - from 29 in to 67 in
Feedrate	40 m/min - 1575 ipm
Acceleration	1.5 m/s ² or 3 m/s ² - 60 in/s ² or 120 in/s ²

Wide range of spindles upon request

Max Power (SI)	from 20 to 125 kW
Max Torque (SI)	from 60 to 300 Nm
Max Speed	up to 36 000 rpm
Taper	HSK

Parts support

FMS with automated pallet change, Milling table, FlexiTool, dedicated Fixture

GLOBAL SERVICES

OPERATION

- OEM spare parts and other brands
- Customer support 7 days a week
- Preventive maintenance
- Sub-assembly repair
- Workshop machinery relocation

OPTIMIZATION

- Certified training
- Consulting (setting-up, operation...)
- Expertise and certifications
- Process optimization

EVOLUTION

- Refurbishment - Machine rebuilding
- Mechanical transformation
- Retrofit (NC and automation)
- Retooling
- Obsolescence management



50 field technicians and experts

3 000 parts items in stock in Europe

3 shops floor dedicated to refurbishment



fives

Industry can do it

CONTACT US

Fives Machining
44, boulevard François Mitterrand
12700 Capdenac, France
Tel.: +33 (0)5 65 63 80 27
fmg.contact@fivesgroup.com

www.fivesgroup.com